

CLAIMS:

1. A coating composition comprising:

(A) 50 to 80 weight percent, based on total resin solids of (A) and (B), of an acrylic polyol comprising the polymerization product of:

(i) 20 to 70 percent hydroxy functional acrylate monomers comprising:

(a) 0.5 to 15 percent of acrylate or methacrylate in which the esterifying group is the residue of a glycidyl group and includes a branched alkyl group;

(b) 5 to 40 percent of acrylate or methacrylate in which the esterifying group is a hydroxy ester having one or more ester groups; and

(c) 0 to 40 percent of one or more hydroxyalkyl acrylate or hydroxyalkyl methacrylate monomers different from (a) or (b);

(ii) 30 to 80 percent acrylate monomers without functional groups reactive with isocyanate; and

(iii) 0 to 5 percent unsaturated acid monomer;

wherein the percentages of each of the acrylic polyol constituents is based upon total resin solids weight of all the acrylic polyol constituents;

(B) 20 to 50 weight percent, based on total resin solids of (A) and (B), of a curing agent reactive with hydroxyl groups;

the percentages based on weight of total resin solids of the composition; wherein the volatile organic content of the coating composition is less than 4.0.

2. The coating composition of claim 1 wherein the acrylic polyol (A)

comprises the polymerization product of:

25 to 60 percent of the monomer component (i);

1 to 10 percent of the monomer component (a);

10 to 35 percent of the monomer component (b);

5 to 35 percent of the monomer component (c);

40 to 75 percent of the monomer component (ii); and

0 to 5 percent of the monomer component (iii);
the percentages based upon total resin solids weight of all the acrylic polyol
constituents.

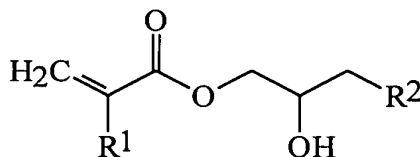
- 5 3. The coating composition of claim 1 wherein:
monomer component (i) is employed in an amount of 30 to 55 percent;
monomer component (ii) is employed in an amount of 45 to 65 percent; and
monomer component (iii) is employed in an amount of 0.1 to 2 percent;
the percentages based upon total resin solids weight of all the acrylic polyol
10 constituents.

4. The composition of claim 1 wherein monomer component (b)
comprises a compound of the following structure:



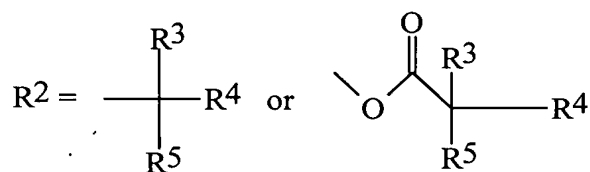
20 where R^7 is H or CH_3 ;
 R^8 is an alkylene group having 2 to 6 carbon atoms;
 R^9 is an alkylene group having 5 carbon atoms; and
 n is 1 to 20.

- 25 5. The coating composition of claim 4 wherein the monomer
component (a) comprises an acrylate or methacrylate having the structure:



where $\text{R}^1 = \text{H or CH}_3$,

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R^3 is H or an alkyl group,

R^4 is an alkyl group, and

5 R^5 is an alkyl group containing at least four carbon atoms.

6. The composition of claim 5 wherein R^3 , R^4 , and R^5 contain a total of at least 8 carbon atoms.

10 7. The composition of claim 1 wherein curing agent (B) comprises at least one polyisocyanate.

8. The composition of claim 1 wherein the acrylic polyol (A) is separate from the curing agent (B).

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9. The composition of claim 1 wherein monomer component (iii) comprises isobornyl acrylate or methacrylate.

10. The composition of claim 9 wherein monomer component (iii) further comprises a vinyl aromatic compound and an acrylate or methacrylate different from isobornyl methacrylate.

11. The coating composition of claim 7 wherein the major polyisocyanate component of curing agent (B) is an isocyanurate of hexamethylene

diisocyanate.

12. The coating composition of claim 1 wherein said coating composition is a clear coat composition.

13. The coating composition of claim 1 wherein said coating composition contains a pigment.

14. The coating composition of claim 1 further including a metal-containing catalyst, organic diluent, an ultraviolet light stabilizer, and an ultraviolet light absorber.

15. The coating composition of claim 1 wherein the volatile organic content of the coating composition is less than 3.6 ^{pounds per gallon} pounds per gallon.

16. The coating composition of claim 1 wherein the curable film-forming components consist essentially of (A) and (B).

17. The coating composition of claim ⁴~~1~~ wherein n is 1 to 5.

18. The coating composition of claim ⁴~~1~~ wherein n is 1.

19. The coating composition of claim 17 wherein monomer

component (b) comprises the reaction product of a hydroxyalkyl acrylate or methacrylate and ϵ -caprolactone.

20. The coating composition of claim 18 wherein monomer
- 5 component (b) comprises the reaction product of hydroxyethyl methacrylate and ϵ -caprolactone.

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